

REPORT

—AND—

RECOMMENDATIONS

OF THE

Merchants' Committee

—OF—

FIFTEEN,

ON THE

NECESSITY FOR AN

Independent Water Supply

—FOR—

NEW-YORK CITY.

REPORT.

Pursuant to a general call issued to the business men in the Dry Goods district of the City of New York, a meeting of the representatives of various firms was held in the room of the Board of Fire-Underwriters on the afternoon of February 16th, 1883, to consider the dangers threatening the City, and particularly the Dry Goods district, on account of insufficient protection to buildings and the deficiency in the water supply, both as to pressure and quantity, and to suggest some means for correcting these evils.

At this meeting, the following committee of fifteen Merchants was appointed to thoroughly investigate these dangers, to advise what action is necessary, and to call upon the authorities for the enactment of such measures as will best secure the important purpose sought.

The following gentlemen compose the

Committee:

CHAS. S. SMITH,	of	Geo. C. Richardson & Co.
WILLIAM E. TEFFT,	"	Tefft, Weller & Co.
J. H. DUNHAM,	"	Dunham, Buckley & Co.
JOHN R. WATERS,	"	Megroz, Portier, Grose & Co.
C. N. BLISS,	"	Bliss, Fabyran & Co.
J. H. REED,	"	Bates, Reed & Cooley.
JOHN CLAFLIN,	"	H. B. Clafin & Co.
JACOB WENDELL,	"	Wendell, Fay & Co.
WM. L. STRONG,	"	Wm. L. Strong & Co.
JOHN GIBB,	"	Mills & Gibb.
ELKAN NAUMBURG,	"	Naumburg, Kraus, Lauer & Co.
CHARLES STERNBACH,	"	Herman, Sternbach & Co.
JAS. O. CARPENTER,	"	Wm. H. Lyon & Co.
E. F. BROWNING,	"	Wm. C. Browning & Co.
CHAS. T. SMITH,	"	Wm. H. Smith & Co.

This committee in considering the various phases of the subject found it necessary to appoint a sub-committee of five, consisting of

Mr. J. H. Dunham,
Mr. J. R. Waters,
Mr. J. H. Reed,
Mr. John Claflin,
Mr. J. O. Carpenter,

to investigate and report on the many and various schemes for giving the city an increased supply of water at higher pressure than at present.

After patient study this sub-committee made the following unanimous report.

REPORT OF SUB-COMMITTEE ON WATER SUPPLY.

CHAS. S. SMITH, Esq., *Chairman.*

Dear Sir—

The Sub-committee appointed to consider the question of the Water Supply in the Dry Goods District, which involves also the question of the Water Supply of the entire city, beg to report as follows:

Various plans have been submitted, several of which have been carefully investigated by your Sub-committee. Plans for the introduction of Salt Water have been proposed, but this seems to be unadvisable. Other plans for Storing Water at a high elevation, to be connected with special pipes for the use of the Fire Service, have been

proposed, but there are reasons why we cannot recommend any of these.

The Pipes now laid in our streets, will be, after a few minor additions, quite adequate for the distribution of as much water, as could possibly be used by all the Fire Engines in this city, should it be found necessary to use them all at one time.

We regard the *quantity* of water in the pipes sufficient for existing methods of use. Owing to the absence of *pressure* however, a part of the power of the engines must be expended in *drawing* water from the pipes, and it is frequently necessary to use two engines in forcing one stream.

While then we have no apprehension of an inadequate supply of water for use in case of an emergency, at the present time, when we consider that the present daily consumption is nearly equal to the full capacity of the Croton Aqueduct, and that this consumption is rapidly increasing, it becomes a matter of vital importance that prompt measures should be taken for the introduction of a largely increased supply of water.

Doubtless the investigation and report of the Mayor's Commission will be succeeded by steps for the construction of another Aqueduct from the Croton River. We would however, urge the importance of an **Independent Water System**, not for the purpose of doing away with the necessity for the enlargement of the Croton System, but

1. For the purpose of providing against the possibility of being left without any water supply in case of an accident to that System.

2. To provide if possible a supply of pure water delivered in the City under a pressure due to a head sufficiently above high water, to force streams far above the highest buildings now constructed in the City.

Our attention has been directed to the Water Sheds, supplying a considerable number of Lakes in Orange and Rockland Counties, which flow into the Ramapo River. From this district, according to the report of an eminent engineer, the water can be introduced by means of Steel or Iron Conduits, and be delivered in two working seasons, with a pressure due to a head 300 feet above tide water.

We feel that it is only a matter of ordinary wisdom for those having the future interests of the City at heart, to secure the control of the Water Supply from this source. This district is in our own State, and the water can be brought to the City entirely through our own territory and will of course be under our own control.

In the plan for increasing the supply of Water by the new Aqueduct and other improvements of the Croton System it is not contemplated, neither is it possible to materially increase the pressure.

Chief Engineer Newton, of the Department of Public Works, states that the shortest possible time within which an additional supply could be obtained from the Croton would be four years and from that to seven; New York City cannot afford to wait that length of time. Property to

many times the amount of the cost of these improvements might be destroyed in the meantime by the ravages of some great conflagration.

Mr. W. J. McAlpine, a Civil and Hydraulic Engineer of the highest standing, states, that the works required for bringing fifty millions of gallons per diem from the Ramapo District to Central Park, can all be easily completed by January 1st, 1885, and that the special pipes for the use of the Fire Service can be laid to the Battery, and in the cross streets, by the same time.

This system (which we consider most admirable) as explained by Mr. McAlpine, is as follows, viz:—

For a commencement of that system of pipes it is suggested that a central one should be laid down through the city from its northern limit to City Hall Park, of 30 inches diameter, and thence of 24 inches diameter to the Battery, with pipes at frequent intervals in the cross streets also of 24 inches diameter.

It is intended that no water shall be drawn from these "fire pipes" except for the extinguishing of fires, and consequently the water will stand at a pressure due to a head of 300 feet above tide, *everywhere in the city*, where the main and cross pipes are laid. Large hydrants will be attached to these "Fire Pipes" at all the crossings of streets each of which would throw a stream of water to a perpendicular height of about 200 feet above tide level.

Should the buildings in the Dry Goods district be supplied with the stand pipes recommended by Chief Engineer Bates, of the Fire Department, and these connected with the "Fire Pipes," the water will be at instant command at all such buildings, and can be almost instantly applied to a fire, without the intervention of the Steam Fire Engine, and can be discharged upon a burning building under more than twice the head and force that could be brought to bear by the use of the largest Steam Fire Engine.

By the adoption of Mr. McAlpine's System, taken in connection with the high pressure of water, your committee would consider the City almost absolutely safe from the ravages of any wide spread conflagration.

Your Committee, therefore, recommend, that the proper authorities be requested and urged, to give to this source of Water Supply that consideration and investigation, which its elements of superior head, and economy of time in construction seem to demand, and with a view to its speedy introduction as an auxiliary to the present, and proposed Croton supply, for the special service, to which the foregoing report alludes.

JAMES H. DUNHAM, *Chairman.*

JOHN R. WATERS.

JOHN H. REED.

JOHN CLAFLIN.

JAMES O. CARPENTER.



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The above report was adopted by the committee of fifteen, ordered to be printed and is now presented for the careful consideration of the merchants, property holders, authorities and others, who have an interest in the health, safety and prosperity of our city.

CHARLES S. SMITH,

Chairman Com. of fifteen.

CHARLES T. SMITH, Sec.